Table S2 Strains used in this study

Strain name	Genotype	Comment
N2	wild type	
KG1180	*lite-1(ce314)* X	Mutant displaying no behavioral response to UV and intense blue light.
AQ2313	*ljIs123[mec-4p::ChR2 codon optimized; unc-122p::rfp]*	*TRN::ChR2*
DAG252-255	*lite-1(ce314)* X; *domEx252-255[mec-4p::Chrimson::GFP, unc-122p::rfp]*	*TRN::Chrimson* Injected plasmids: dg260 (20 ng/μl), dg9 (20 ng/μl). We observed similar behavioral responses with all four independent lines and Figure 1 reports aggregated data.
DAG260-263	*lite-1(ce314)* X; *domEx260-263[mec-4p::CoChR::GFP, unc-122p::rfp]*	*TRN::CoChR* Injected plasmids: dg262 (20 ng/μl), dg9 (20 ng/μl). We observed similar behavioral responses with all four independent lines and Figure 1 reports aggregated data.
DAG272	*lite-1(ce314)* X; *domEx272[mec-3p::QF, mec-4p::QS, QUAS::CoChR::GFP, unc122p::RFP]*	*FLP::CoChR* Injected plasmids: dg243 (5 ng/μl), dg245 (40 ng/μl), dg276 (20 ng/μl), dg9 (20 ng/μl).
DAG342-344	*lite-1(ce314)* X; *domEx342-344[mec-4p::Chrimson::GFP, mec-3p::QF, mec-4p::QS, QUAS::CoChR::GFP, unc122p::RFP]*	*FLP::CoChR;TRN::Chrimson* Injected plasmids: dg243 (5 ng/μl), dg245 (40 ng/μl), dg276 (20 ng/μl), dg260 (20 ng/μl), dg9 (20 ng/μl). We observed similar behavioral responses with all three independent lines and Figure 2 reports aggregated data.
DAG355	*lite-1(ce314)* X; *domIs355[mec-3p::QF, mec-4p::QS, QUAS::CoChR::GFP, unc122p::RFP]*	*FLP::CoChR* DAG272 was integrated and outcrossed twice with KG1180 *lite-1(ce314)* to produce DAG355.
DAG356	*domIs355[mec-3p::QF, mec-4p::QS, QUAS::CoChR::GFP, unc122p::RFP]*	*FLP::CoChR* DAG355 was crossed with N2 to remove the *lite-1* mutation and create DAG356.